Installation Instructions

PolyPro Single-Wall Gas Vent
System for Category II & IV
Gas-Burning Appliances

POLYPRO®

DuraVent
Member of M&G Group

A MAJOR CAUSE OF VENT RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF THE UTMOST IMPORTANCE THAT POLYPRO® BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

⚠ WARNING

CARBON MONOXIDE POISONING HAZARD. Failure to follow the steps outlined below for each appliance connected to the venting system being placed into operation could result in carbon monoxide poisoning or death.

- Examine all components for possible shipping damage prior to installation;
- Read all instructions before beginning the installation and follow these instructions exactly as written.
- Proper joint assembly is essential for a safe installation. Check the integrity of ALL joints upon completion of assembly
- This venting system must be free to expand and contract under normal operation.
- Assure unrestricted vent movement where required through walls, ceilings and roof penetrations.
- This venting system must be supported in accordance with these instructions.
- Do not mix pipe, fittings, or joining methods from different vent system manufacturers. Do not use adhesives of any kind with this venting system. insurance and safety listing of your appliance. Acceptance of the installed system is dependant on full compliance with these installation instrucitons

⚠ WARNING

Risk of carbon monoxide poisoning or fire due to joint separation or pipe breakage.

Keep these instructions for future reference.

Dear Customer, Installer, or End User:
We welcome any comments regarding matters pertaining to our DuraVent products. We welcome any ideas, input or complaints to help improve our product offering. Send your emails to:
president@duravent.com

If you are searching for tech support or product information, please phone us at 800-835-4429.
Or email us at:
techsupport@duravent.com

PolyPro® is one of M&G DuraVent's line of products.

C ETL LISTED
Intertek

PolyPro Single-Wall Gas Vent System

For the most up-to-date installation instructions, see www.duravent.com

POLYPRO®

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LISTING
Listed to ULC S636
Rated Class IIA, IIB, and IIC vent system
maximum temperature 230°F (110 °C)
maximum positive pressure 15 in-w.c.
Massachusetts Plumbers Board,
G1-0811-42

APPLICATION
ANSI Category II and IV gas-burning appliances
Appliances specifically tested and listed to use M&G DuraVent PolyPro Venting

PERMITS
Check with your local Building Official, Fire Official, or other authority having jurisdiction regarding permits, restrictions, and installation inspections in your area.

GENERAL INSTALLATION NOTES
Read these instructions before beginning.
You must use only authorized M&G DuraVent PolyPro vent parts, or other parts specifically authorized in these instructions and/or listed by the appliance manufacturer in order to maintain a safe, approved system.

- Do not fill any air space clearance **(*Table 1*)** with insulation.
- Do not mix parts or try to match with other products or use improvised solutions.
- Do not install damaged or modified parts.

Table 1
Clearance to Combustibles

	VENT PIPE ORIENTATION	
Single Wall	**Vertical**	**Horizontal**
Up to 190°F	0"	0"
Up to 230°F	0"	¼" (6mm) all around
Concentric		
Up to 230°F	0"	0"

- Use soapy water to lubricate gaskets.
- Never use Petroleum base lubricants.

If these directions and those of the appliance manufacturer differ, follow the more conservative requirements. If you have any questions, contact either your dealer or M&G DuraVent directly. A venting system must not be routed into, through, or within any other vent, such as an existing masonry or factory-built chimney flue, unless that vent or chimney is not being used to vent another appliance and is only used as a conduit for the gas-vent system. Plastic venting systems shall not pass through fire rated separations without approved firestopping.

Refer to the appliance manufacturer's instructions for maximum and minimum vent lengths permitted with your specific appliance model. This information should include guidance on the maximum number of elbows and related pressure-drops. The total vent length from the appliance to the termination shall not be greater than specified by the appliance manufacturer. If specific guidance is not offered by the appliance manufacturer as to Equivalent Vent Lengths (EVL) for vent components, the general guidelines in Table 2 can be used.

CONDENSATE DRAIN *(Fig.1)*
Refer to the appliance manufacturer's installation instructions for requirements of condensate drainage. Ensure proper system slope for drainage. ***(Fig.7)***

⚠ IMPORTANT
The vent system must be compliant in accordance with local code requirements and appropriate National Codes: In the US: NFPA 54 / ANSI Z223.1 National Fuel Gas Code or the International Fuel Gas Code. In Canada: CAN/CGA-B149.1 Natural Gas Installation Code or CAN/CGA-149.2 Propane Installation Code.

IMPORTANT

To prevent possible recirculation of flue gases, the installer must consider the effects of prevailing wind conditions, eddy zones, nearby buildings, obstructions, or other obstacles such as shrubs when planning exhaust and air intake locations. M&G DuraVent can not be held responsible for poor appliance performance or damage to buildings due to an incorrect installation. The minimum clearances detailed within our instructions may not be adequate in some circumstances depending on the specifics of the installation. For this reason we always recommend vertical venting.

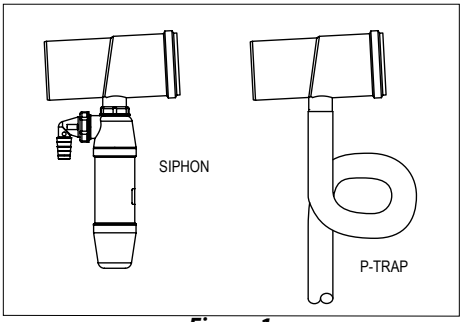

Figure 1

WARNING

CARBON MONOXIDE POISONING HAZARD

Failure to follow these installation instructions could result in personal injury or death

JOINT CONNECTIONS

Verify the gasket is seated evenly inside the groove in the female end. There are two versions of locking band available, one with standoff legs (***Fig.2***), one without (***Fig.3***). For both: Slide Locking Band on male pipe section. ***Fig.2***: For pipe without Locking Button: Slide pipe sections together until joint is bottomed out then slide apart ¼" to 5/8" (7.5 - 15 mm) for expansion. Clip the locking band clasp onto the female hub. ***Fig.3***: For PP/Metal pipe with Locking Button: Insert locking button into locking band recess, rotate button away from Locking Band Clasp, insert pipe sections, push lock band clamp downward into socket, disengage button 1/4" from socket. **Screws are not allowed for joint connection. Never penetrate the wall of PolyPro vent pipe. (Exception- a SS screw may be used outside the building on exterior termination fittings to orient an elbow, etc).**

- **IMPORTANT: Locking bands are**

Table 2 - Equivalent Length Chart

	2" Equivalent Length	3" Equivalent Length	4" Equivalent Length	5" Equivalent Length	6" Equivalent Length	8" Equivalent Length
1-ft Vent Pipe	1-ft	1-ft	1-ft	1-ft	1-ft	1-ft
1-ft Flex Pipe	2-ft (same diameter as rigid)	2-ft (same diameter as rigid)	2-ft (same diameter as rigid)	2-ft (same diameter as rigid)	N/A	N/A
1-ft Flex Pipe	0.4-ft (updsized one diameter)	0.6-ft (updsized one diameter)	0.6-ft (updsized one diameter)	N/A	N/A	N/A
45 Elbow	3-ft	3-ft	5-ft	6-ft	6-ft	13-ft
90 Elbow	5-ft	7-ft	12-ft	14-ft	14-ft	19-ft
Tee	9-ft	12-ft	19-ft	21-ft	22-ft	29-ft

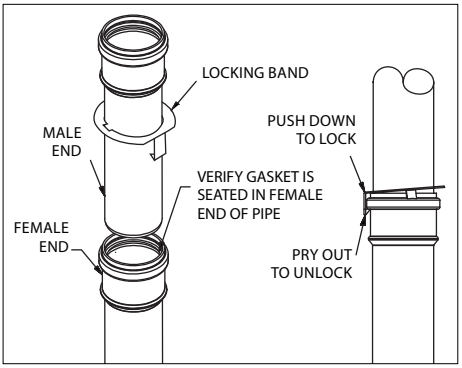

Figure 2

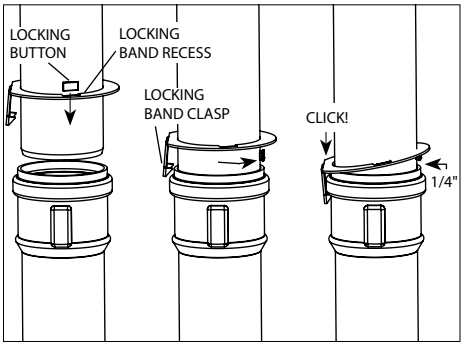

Figure 3

mandatory on all exhaust vent joints on pipe sizes from 2" up to 4". *(Fig.2, 3)*

- For 5"-8" diameter, Locking Bands are not required but strongly recommended at every exhaust vent joint. ***(Fig.2, 3)***
- Locking bands are optional for air inlet vent joints. ***(Fig.2, 3)***

POLYPRO TO DURAVENT / SECURITY CHIMNEY METAL VENT CONNECTION

Approved M&G Duravent / Security Chimney 1738/636 metal vent fittings can be used with PolyPro. For PolyPro (female) to Metal Vent (Male) connections, the metal fittings will have a Locking Button or Protrusion, and will be connected simliar to ***Fig. 3***.

APPLIANCE CONNECTION: 2" - 4"

1. If the appliance has a PVC/CPVC female outlet use the Appliance Adapter/ PVC Adapter and Clamp. ***(Fig.4)***
   - If the appliance has a PVC/CPVC Male outlet use a matching PVC/ CPVC coupling to convert to a female outlet.
2. If the appliance outlet has a rubber boot or Fernco-style appliance adapter, then the PolyPro vent pipe may attach directly to the appliance (***Fig.5***).
3. If the appliance has a FasNSeal outlet then use the FasNSeal to PolyPro adapter.

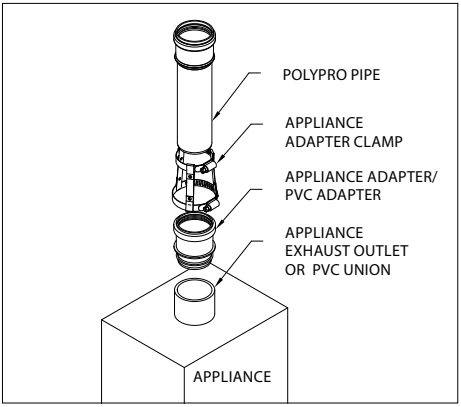

Figure 4

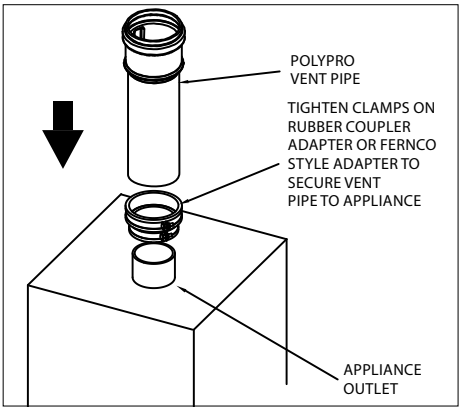
POLYPRO VENT PIPE
TIGHTEN CLAMPS ON RUBBER COUPLER ADAPTER OR FERNCO STYLE ADAPTER TO SECURE VENT PIPE TO APPLIANCE
APPLIANCE OUTLET

Figure 5

INSTALLATION

1. Pipe lengths may be cut to length ***(Fig.6). Use an alternate clamp (Fig.4-PPS-PAC / PPS-LBC) for the connection if a locking button (Fig.3) is removed.***
   - Cut square (not at an angle) to the end of the pipe.
   - Remove burrs before assembly.

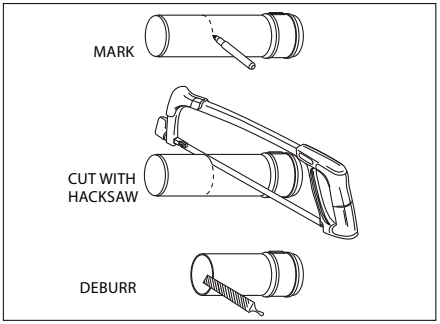

Figure 6

2. Check with appliance manufacturer for any restrictions or limits on vent length, number of elbows, etc.
3. The slope of the vent pipe must be at least 3° (5/8" per ft, 50mm per meter) back to the appliance. ***(Fig.7)***
4. Every horizontal section must be supported. ***(Fig.8)***
5. The venting system shall be securely supported using suitable hangers. Duravent hardware is recommended; field supplied support hardware suitable to the AHJ is acceptable, hardware must not deform or damage the vent. **(*Fig. 7 and 8*)** Make sure the load of the vent system is not supported by the appliance.
   - On Duravent and other certain clamp styles, ¼" or greater All-thread may be used as an extension.
6. Vertical installations must be supported every 10 feet (3 meters) or less. ***(Fig.8)***
7. Do not install / enclose PolyPro in the stud space of a wall.
8. Elbows and Tees are sufficiently supported when a bracket is fixed at the female end of the connected straight section. (***Fig.8)***

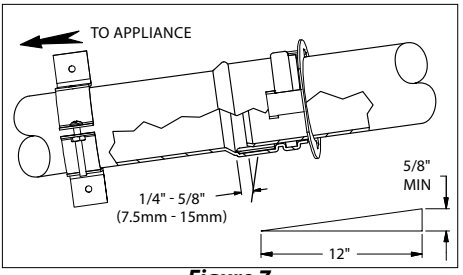

Figure 7

⚠ IMPORTANT

PP Pipe sections must be disengaged 1/4"-5/8" per joint (to allow for expansion) and sloped 3°(5/8"per ft) back to the appliance per *Fig.7* for proper condensate flow.

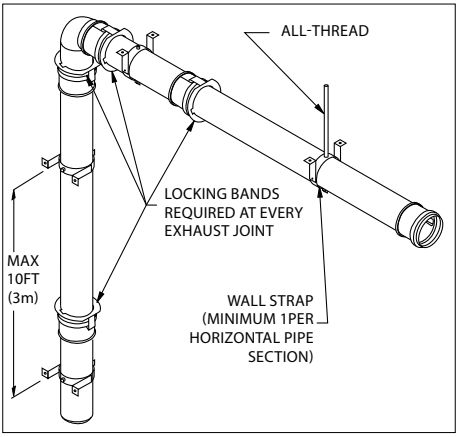

Figure 8

9. Vertical components can be insulated in unconditioned space or when ran outside.
10. Use black UV protected components on venting installed on the exterior.

ENCLOSURE REQUIREMENTS

Through Rooms: Interior vents shall be enclosed where they extend through closets, storage areas, occupied spaces, or anyplace where the surface of the vent could be contacted by persons or combustible materials except when installed in the room with the appliance.

Multi-Story: Consult local building or other applicable codes for requirements in your area. In the U.S., NFPA 211 10.6.3 (2013) states: "Vents that pass through the floors of buildings requiring the protection of vertical openings shall be enclosed within an approved enclosure. The enclosure walls shall have a fire resistance rating of not less than 1 hour where a vent is located in a building less than four stories in height. The enclosure walls shall have a fire resistance rating of not less than 2 hours where a vent is located in a building four or more stories in height."

If the vent system is not exposed to wind or lateral load within the enclosure and joints cannot buckle, wall straps are not required provided upper and lower supports are proper.

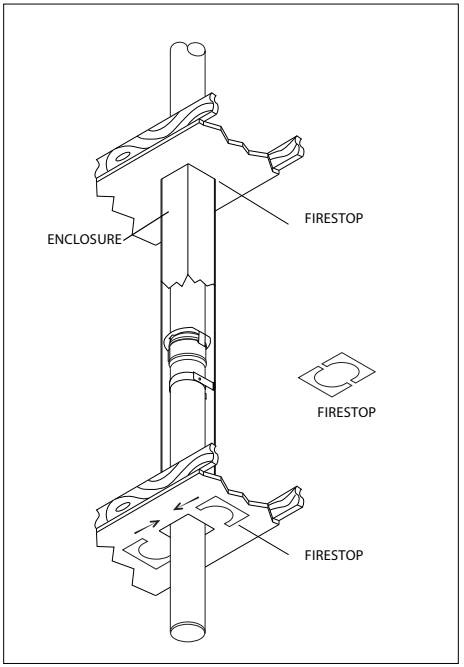

Figure 9

FIRESTOPS (*Fig. 9*)

1. Firestops are required at each ceiling/ floor penetration including an attic. Firestops are not required at the roof deck penetration.
2. Cut and/or frame hole. ***(Table 3)***
3. Slide the two halves together and attach to the ceiling.

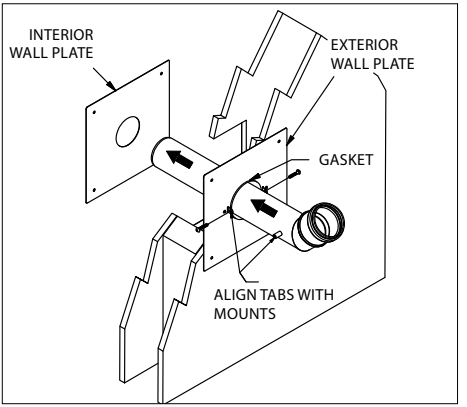

Figure 10

TERMINATIONS:

Horizontal Single Pipe (Fig.10)

1. Locate penetration in wall.
2. Cut or cut and frame hole. ***(Table 3)***
3. Attach Inner Plate to wall.
4. Attach / seal Outer Plate to outside wall.
5. Line up keyway, slide black pipe **(UV Protected)** or termination through plates.
6. If termination is used, attach with screws. Align tabs with pipe mounts.

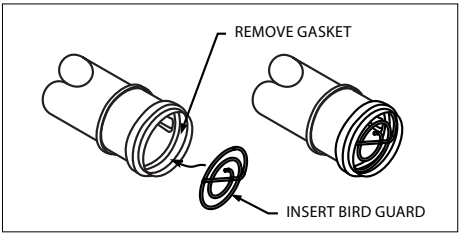

Figure 11

Table 3 - Wall & Ceiling Penetration Sizing Table						
	VENT DIAMETER					
Termination	**2"**	**3"**	**4"**	**5"**	**6"**	**8"**
CONCENTRIC VERTICAL OR HORIZONTAL	4 1/8" 105mm	5 1/8" 130mm	6 1/8" 155mm	N/A	N/A	N/A
TWIN PIPE HORIZONTAL CLASS IIB	7 3/8" x 2 5/8" 187mm x 65mm	8 3/8" x 3 7/8" 212 x 85mm	9" x 4 3/8" 228 x 100mm	N/A	N/A	N/A
TWIN PIPE HORIZONTAL CLASS IIC **(Framing Dimensions)**	8" x 3" 200 x 77mm	8 7/8" x 3 7/8" 225 x 98mm	9 3/8" x 4 3/8" 238 x 112mm	N/A	N/A	N/A
SINGLE HORIZONTAL CLASS IIB	2 5/8" 65mm /	3 3/8" " 85mm	4" " 100mm	N/A	N/A	N/A
SINGLE HORIZONTAL CLASS IIC **(Framing Dimensions)**	3" 77mm	3 7/8 98mm	4 3/8 112mm	N/A	N/A	N/A
SINGLE WALL W/ LOCKING BAND VERTICAL	3 1/2"	4 1/4"	5 1/8"	6 1/2"	7 1/4"	9 1/4"
SINGLE PIPE NO LOCKING BANDS VERTICAL	3"	3 3/4"	4 1/2"	5 3/4"	6 3/4"	7 3/4"

7. Add additional components to raise vent level if desired (vent to be 12" above grade or average snow level).
8. Remove gasket and install Bird Guard into end of pipe. ***(Fig.11)***
9. Install Poly Pro venting system to/from termination to appliance.

Horizontal Twin Pipe (Fig.12)

1. Locate penetration.
2. Cut or cut and frame hole. ***(Table 3)***
3. Attach interior wall plate to inside wall.
4. Attach and seal exterior wall plate to outside wall.
5. Slide pipes through outer plate.
6. Rotate pipes to slide pipe past keyway.

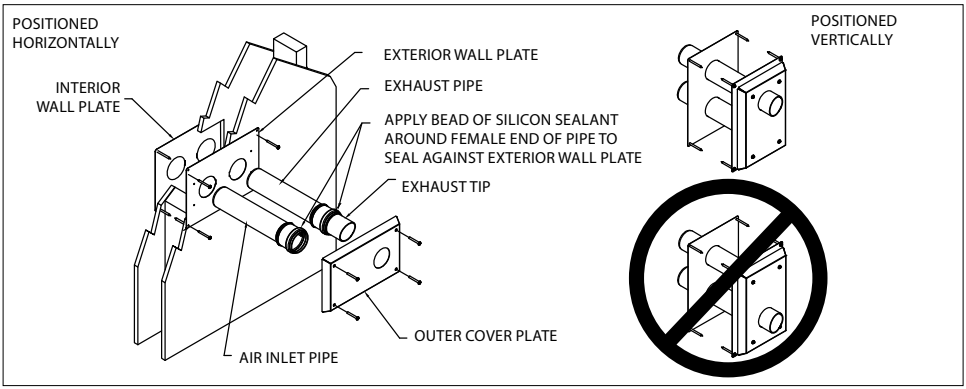

Figure 12

7. Slide exhaust tip into exhaust pipe.
8. Mount outer cover plate to exterior wall plate.
9. install Poly Pro venting system to/from termination to appliance.

Horizontal Concentric (Fig.13)

1. Locate penetration.
2. Cut hole. ***(Table 3)***
3. Attach and seal exterior exterior wall plate onto outside wall.
4. Slide cap through exterior wall plate into hole from outside building. **Cap must not be installed sloped downward.**
5. Orient termination so air intake slots face down.
6. Seal termination to exterior wall plate with silicone sealant.
7. Slide interior wall plate over termination and attach to wall from inside the room.
8. Attach interior wall plate to termination with provided hardware.
9. Install gaskets into Co-Linear Adapter.
10. Attach Co-Linear Adapter to Horizontal Termination.
11. Install Poly Pro venting system to/from termination to appliance.

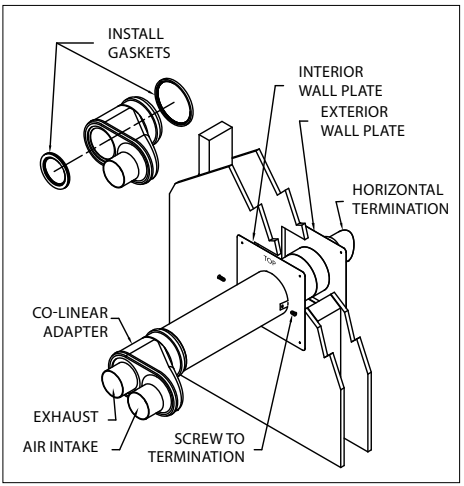

Figure 13

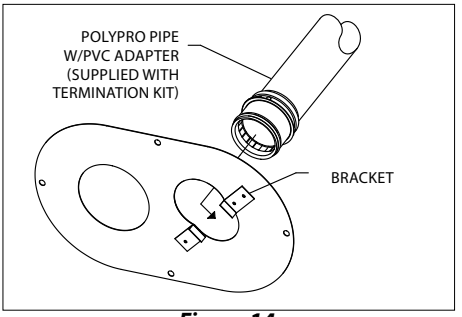

Figure 14

Lochinvar 2" installation (Fig.14)

1. Slide PolyPro pipe w/ PVC adapter into oblong hole and down. Brackets will point away from the wall, on the exterior of the house, and rest between the two outward beads.
2. Install the termination assembly in accordance with appliance manufacturer's instructions.
3. Verify exhaust pipe cannot be removed from termination cap.

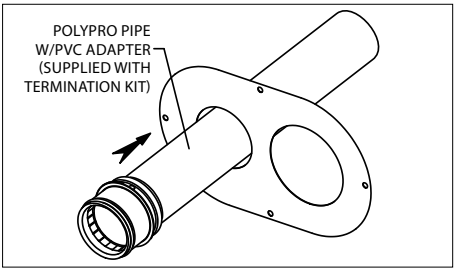

Figure 15

Lochinvar 3" & 4" installation (Fig.15)

1. Slide PolyPro Pipe w/ PVC adapter into small hole of retaining plate until it stops on the adapter collar.
2. Finish installing the termination assembly in accordance with appliance manufacturer's instructions. PolyPro

pipe is to be installed on the exhaust outlet.

3. Once securely installed to exterior, verify exhaust pipe cannot be removed from termination cap.

Stainless Horizontal (Fig.16)

1. Cut opening in the wall.
2. Add Trim Plates and locking band (if applicable) to final pipe length before installing. Make sure flanges are facing towards the wall. Use non-hardening sealant where necessary.
3. After exterior trim plate is mounted to wall, measure 3" from exterior plate and cut off female pipe end. Duburr. Seal pipe to exterior plate. Slide Bird screen over cut pipe end and tighten clamp.

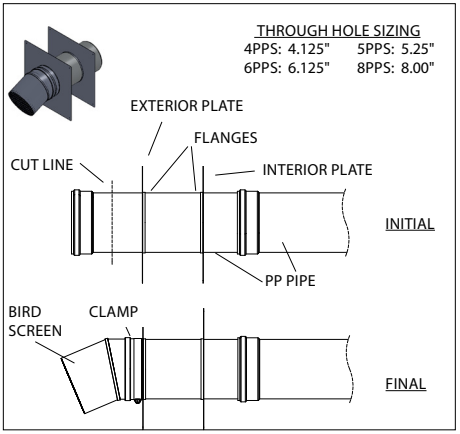

Figure 16

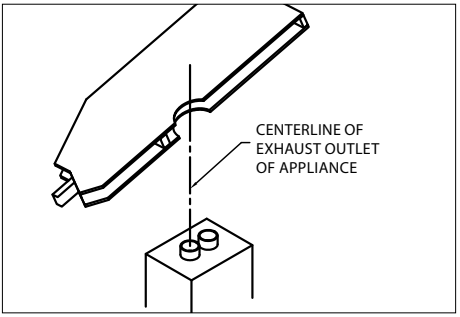

Figure 17

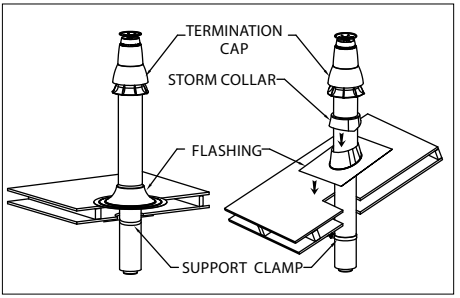

Figure 18

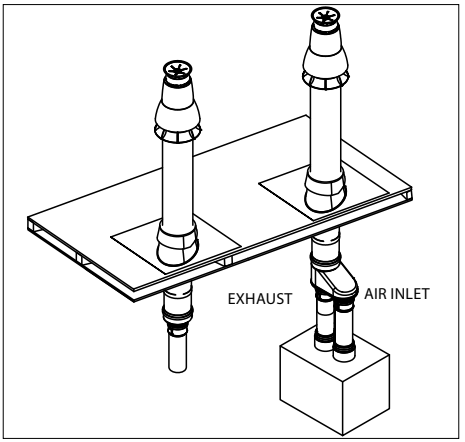

Figure 19

Vertical Concentric (Fig.18)

1. Locate penetration. ***(Fig.17)***
2. Cut hole in roof. ***(Table 3)***
3. Cut hole in ceiling above appliance.
   - Cut hole(s) big enough for pipe in all ceilings above appliance if installing in a multi story installation.
4. Firestop each ceiling penetration.
5. Attach flashing to roof. ***(Fig.18)***
   - Slide storm collar onto flashing if using the Adjustable Roof Flashing.
6. Slide vertical termination into flashing from above until seated on flashing.
7. Plumb Termination and mount support bracket to structure.

8. Install gaskets into Co-Linear Adapter (if applicable). ***(Fig.13)***
9. Connect Co-Linear Adapter to termination (if applicable). ***(Fig.19)***
10. Install Poly Pro venting system to/from Co-Linear Adapter or termination to appliance.

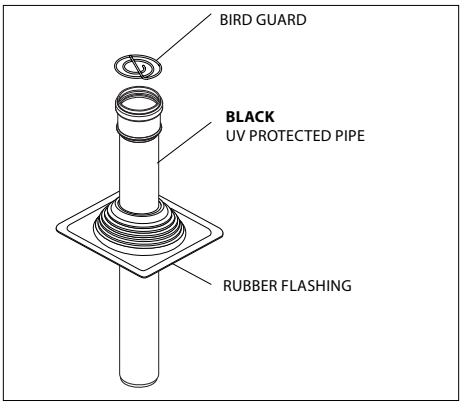

Figure 20- Vertical Pipe Termination

Vertical single pipe (Fig.20)

1. Follow instructions for Vertical Concentric Termination.
2. Attach flashing to roof. ***(Fig.20)***
   - Rubber boot flashing or similar, ensure an effective, leak-proof seal is maintained.
   - Use **BLACK** UV protected pipe.
3. Maintain 12 in. (305mm) min. clearance above highest anticipated snow level, max 24 in. (610mm) above roof.

MULTIPLE VENTS IN ONE CONDUIT (Fig.21)

Multiple PolyPro Rigid/Flex vent systems may be installed within one conduit. Listed 2"-4" M&G components must be used, and the conduit (if pre-existing) must be inspected and deemed sound.

Upper supports may be field supplied and listed, the listing requires: Min thickness of 24 ga (0.020") SS, no larger than 18" Dia or 18" max length rectangle, 4 vent runs max per support. The listing requires clearance holes no larger than 5 1/8" Dia, with spacing 1 3/4" apart.

The upper support plate (with a flange for B vent and factory built chimney, ***Fig.22***) must be affixed to the top of the conduit via screws. Anchor bolts must be used when attaching a flat support plate to the top of Masonry or other chase (not shown). Support plate must be weather tight. The SS Hanger Bracket is installed under the Gasket Plate and affixed to the top of the support plate with screws (***Fig.22)***. Use non-hardening sealant as required.

The lower portion of the vent system must be supported and firestopped as detailed earlier in these and/or the PP Flex instructions (provided separately).

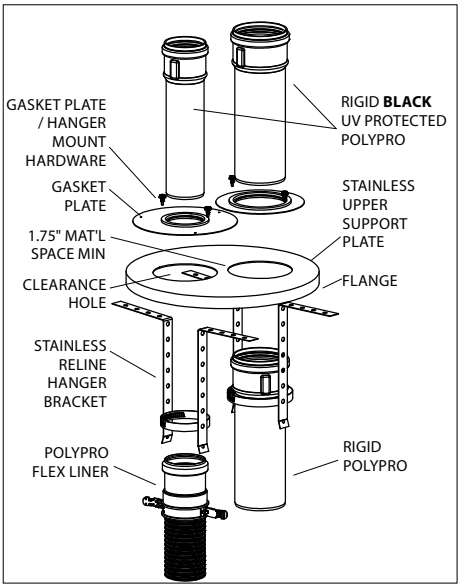

Figure 21

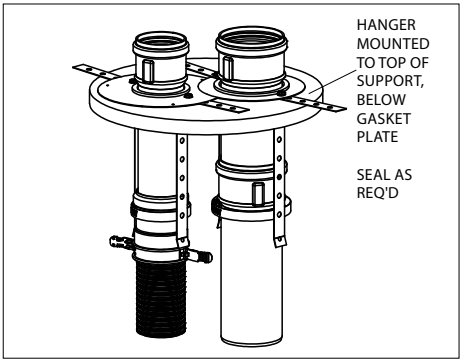

Figure 22

ALUM FLEX AIR INTAKE (Fig.23)
Important: This section only applies to sourcing combustion air!

Reference ***Fig.23*** for installation of air intake flex when used with the M&G DuraVent Chimney Cap Termination. Combustion air is drawn in under the storm collar. Ensure Aluminum flex is approx 1"-2" below termination base for unrestricted operation. See ***Fig.24*** for the lower install.

MAINTENANCE
Have your venting system checked annually. This can be done easily by the same technician who inspects & services the appliance. Recommended areas to inspect are as follows:
- Check areas of the Venting System which are exposed to the elements for wear or damage. If damage is found, the components should be replaced immediately.
- Where possible, look into the Termination Cap to verify no foreign material is there to block the vent. Remove any foreign material found.
- Where practical, inspect joints to verify that no Pipe Sections or Fittings have been disturbed, and consequently loosened. Also check mechanical supports such as Wall Straps, support plates, etc for rigidity.

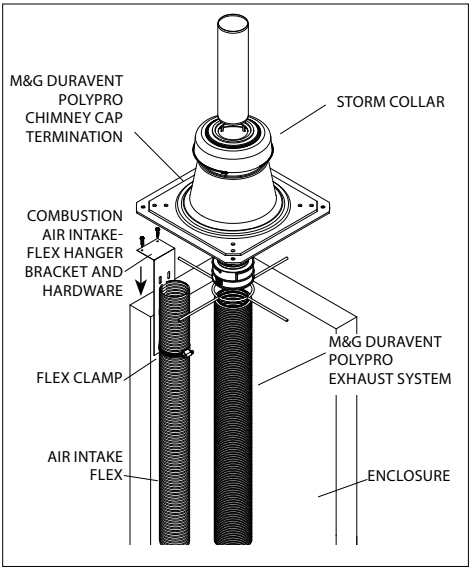

Figure 23- Upper Assy

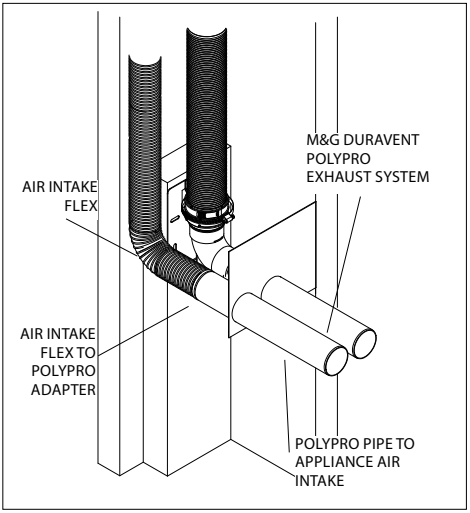
M&G DURAVENT POLYPRO EXHAUST SYSTEM
AIR INTAKE FLEX
AIR INTAKE FLEX TO POLYPRO ADAPTER
POLYPRO PIPE TO APPLIANCE AIR INTAKE

Figure 24- Lower Assy

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POLYPRO WARRANTY

M&G DuraVent, Inc. ("DuraVent") provides this warranty for PolyPro® for ten years. Subject to the limitations set forth below, DuraVent warrants that its products will be free from defects in material or manufacturing, if properly installed, maintained and used. DuraVent products are fully warranted if installed only by a professional installer. This Warranty is transferable from the original homeowner to the buyer of the home within the warranted ten years. This warranty does not cover normal wear and tear, smoke damage or damage caused by chimney fires, acts of God, or any product that was: (1) purchased other than from an authorized DuraVent dealer, retailer or distributor; (2) modified or altered; (3) improperly serviced, inspected or cleaned; or (4) subject to negligence or any use not in accordance with the installation instructions included with the product as determined by DuraVent.

Installation instructions are available online at www.duravent.com under Support/Literature and through our Customer Service Department 800-835-4429
or customerservice@duravent.com.

DuraVent provides the following warranties for PolyPro: One Hundred Percent (100%) MSRP 10 years from the date of purchase.

All warranty obligations of DuraVent shall be limited to repair or replacement of the defective product pursuant to the terms and conditions applicable to each product line. These remedies shall constitute DuraVent's sole obligation and sole remedy under this warranty. This warranty provides no cash surrender value. The terms and conditions of this warranty may not be modified, altered or waived by any action, inaction or representation, whether oral or in writing, except upon the express, written authority of an executive officer of DuraVent.

This product is intended for venting only category II & IV appliances burning Natural Gas, Propane and Oil. All other fuels are not covered under this warranty.

LIMITATIONS ON POLYPRO INTERNET SALES: Notwithstanding any other terms or conditions of this PolyPro Warranty, DuraVent provides no warranty for PolyPro® if it is not installed by a qualified professional installer.

DuraVent must be notified and given the opportunity to inspect defective product prior to replacement under the terms of this limited lifetime warranty. All warranty claims must be submitted with proof of purchase. Labor and installation costs are not covered under this warranty. To obtain warranty service contact: DuraVent Warranty Service, 877 Cotting Ct., Vacaville CA 95688, or call 800-835-4429.

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For the most up-to-date installation instructions, see www. duravent.com

REV 9.4.2012

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